

**Amendments to the Specification:**

Please amend the specification as indicated:

Please delete the paragraph on page 3, lines 4-5, and replace it with the following paragraph:

Figure 5 discloses the amino acid sequence (SEQ ID NO: 10) expressed from the cDNA **(SEQ ID NO: 9)** of Figure 4.

Please delete the paragraph on page 3, lines 7-8, and replace it with the following paragraph:

Figure 6 discloses a cDNA sequence (SEQ ID NO: 11), nucleotides 121-1779 of which encode a human GLP-2 receptor **(SEQ ID NO: 12)**.

Please delete the paragraph on page 3, lines 16-17, and replace it with the following paragraph:

Figure 9 compares the amino acid sequences of the rat GLP-2 receptor **(SEQ ID NO: 2)** and the human GLP-2 receptor **(SEQ ID NO: 12)**.

Please delete the paragraph on page 3, lines 19-20, and replace it with the following paragraph:

Figure 10 compares the amino acid sequences of the rat GLP-2 receptor **(SEQ ID NO: 2)** and the human GLP-2 receptor **(SEQ ID NO: 12)** against rat GLP-1 receptor **(SEQ ID NO: 13)**.

Please delete the paragraph on page 23, line 28, to page 24, line 6, and replace it with the following paragraph:

Amplification of GLP-2R cDNA from the five positive templates was then performed. By using one specific primer (P23-RI or P23-FI) and one primer based on pcDNA3 vector (Invitrogen) sequence (830F or 1186R), the GLP-2R cDNA insert was directly amplified from clonally impure plugs or 2777-clone pools. The sequences of the vector primers were as follows.

830F: [5'-AACCCACTGCTTAC-3'] (SEQ ID NO: 14)

1186R: [5'-CCCAGAATAGAATGACACC-3'] (SEQ ID NO: 15)

The PCR was done, under the following conditions just noted, using Expand™ PCR system.

Please delete the paragraph on page 24, lines 15-22, and replace it with the following paragraph:

Because of difficulty in clonally purifying the GLP-2 receptor cDNA clone from the RHT 440 or RHT 587 cDNA library pools, the cDNA was amplified and recloned into pcDNA3. Based on the sequence obtained from RHT 440 and RHT 587, two primers were designed one which primed starting 4bp upstream of the initiation codon and another which primed starting 8bp downstream of the stop codon.

WBR-C5: [5'-CAGGGGCCGGTACCTCTCCACTCC-3'] (SEQ ID NO: 16)

WBR-C3: [5'-TTGGGTCCTCGAGTGGCCAAGCTGCG-3'] (SEQ ID NO: 17)

Please delete the paragraph on page 32, lines 16-26, and replace it with the following paragraph:

A. Amplification of cDNA inserts with  $\lambda$ gt10 primers.

On a lawn of bacterial cells (E.coli C60OHf), 10  $\mu$ l of phage resuspension from each clone was placed at marked spots. After 5 hr incubation at 37°C, the phage plaques were clearly visible. The surface of each plaque was transferred to 200  $\mu$ l of water. The samples were kept in boiling water bath for 5 minutes and centrifuged at room temperature for 10 minutes. 1  $\mu$ l of sample was used to amplify with a set of  $\lambda$ gt10 primers.

GT10-5KXb [5'-GGGTAGTCGGTACCTCTAGAGCAAGTTCAGCC-3'] (SEQ ID NO: 18)

vs

GT10-3BXh [5'-ATAACAGAGGATCCTCGAGTATTCTTCCAG-3'] (SEQ ID NO: 19)

Please delete the paragraph on page 34, lines 6-16, and replace it with the following paragraph:

PCR was used to incorporate two bp of the rat GLP-2R DNA sequence into HHT13-1 DNA at the site of the 2 bp frame-shift deletion identified relative to the rat GLP-2R coding sequence. The following primers were designed from HHT13 DNA sequence to insert two bp:

HWBR/2BPI-475F

[5'-ACAGGCATGTCTGGAAGACTTACTCAAGGAACCTTCTGGCAT-3'] (SEQ ID NO: 20)

HWBR/2BPI-506R

[5'-ATGCCAGAAGGTTCCCTTGAGTAAGTCTTCCAGACATGCCTGT-3'] (SEQ ID NO: 21)

HWBR-F7 [5'-TTCCTCTGTGGTACCAAGAGGAATGC-3'] (SEQ ID NO: 22)

and HWBR-1910R:

[5'-GGTGGACTCGAGGTACCGATCTCACTCTCTTCCAGAATC-3'] (SEQ ID NO: 23)

Please delete the paragraph on page 36, lines 11-29, and replace it with the following paragraph:

**Isolation of the Full-Length Human GLP-2 Receptor cDNA**

Twenty thousand clones from  $\lambda$ gt10 cDNA Library from Human Stomach (Clontech; Cat. HL3017a) were plated on each of 100 agar 150 mm plates. SM buffer (0.1 M NaCl, 10 mM  $Mg_2SO_4$ , 35 mM Tris, pH-7.5, 0.01% gelatin) was added to each plate to obtain 100 phage lysates each containing 20,000 (20K) pooled clones. The first fifty 20K phage lysates (20K pools) were screened by PCR using two primers designed from HHT13 DNA sequence. The template DNA from each pool was prepared by boiling phage lysate for 10 minutes and centrifuging for 10 minutes.

HWBR-113F [5'-GTGGAGAGGATTTGTGCAAACATTTC-3'] (SEQ ID NO: 24)

HWBR-578R [5'-AGAGACATTTCAGGAGAAGAATGAG-3'] (SEQ ID NO:

**25)**

1  $\mu$ l of each 20K pool DNA was diagnosed by PCR with HWBR-113F and HWBR-578R primers using the following conditions:

2  $\mu$ l of 10x Expand™ Buffer 1

2.8  $\mu$ l of 2.5mM dNTP mix

0.6  $\mu$ l of primer HWBR-113F

0.6  $\mu$ l of primer HWBR-578R

0.3  $\mu$ l of Expand PCR enzyme (1 unit)

12.7  $\mu$ l water

1  $\mu$ l 20K pool DNA

Please delete the paragraph on page 38, lines 13-16, and replace it with the following paragraph:

**1. Antipeptide antibodies**

Antipeptide antibodies were raised in rabbits against an N-terminal peptide (QTRENTTDIWQDESE) (**SEQ ID NO: 26**), a C-terminal peptide (SEGDGSETLQKLR) (**SEQ ID NO: 27**) and extracellular loop 1 (SHNSUYSKRPDDESG) (**SEQ ID NO: 28**) of the rat GLP-2 receptor.